

## COLLECTING WILD BEES IN THE YOSEMITE

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When our kind friend, Mr. Guy Haselton, the well-known photographer of Hollywood, offered to take us to the Yosemite, my wife and I were, of course, delighted to go with him, never having visited this famous valley. We were there from May 5 to 11, 1941, probably the best time of year to enjoy the extraordinary beauty of the place, which I will not pretend to describe. I will only refer to the great abundance of the western dogwood, its great white flowers conspicuous everywhere. This plant was named *Cornus nuttalli* by Audubon, who figured it with the band-tailed pigeon in his famous work on American birds. The bees recorded were taken on the floor of the valley (alt. approx. 4000 ft.), except a few from the Myers Ranch, 11 miles away, at a considerably higher altitude. I could not have prepared this report without the aid of Mr. P. H. Timberlake and access to the collection at the University of California Citrus Experiment Station at Riverside. Timberlake critically examined the specimens and gave me his determinations, which are certainly the most reliable to be had at the present time. Even in the case of species which I myself described, it frequently happens that I have not looked at them for a long time, perhaps a quarter of a century; and in addition, they now have to be differentiated from numerous related species, more recently made known.

My list of captures represents, of course, but a fragment of the actual bee fauna, but it is interesting as an introduction to the subject. Mr. Darwin Tiemann, of the Yosemite Museum, has been collecting bees, and has obtained many species (especially of *Osmia*) which I did not find. I make no further reference to these now, as I presume a list of his captures will eventually be published.

Where no locality is given, the floor of the valley, not far from Yosemite Lodge, is to be understood.

## ANNOTATED LIST OF SPECIES

*Hylaeus verticalis* Cresson. One male at Myers Ranch, visiting *Ranunculus californicus* Bentham, May 9.

*Sphcodes* sp. Male. Same as presumed new species found at Riverside.

*Sphcodes* sp. Females of two different species, believed to be

- new. Timberlake has a long series of apparently new Sphecodes, which he will publish as circumstances may permit.
- Halictus aspilurus* Cockerell. Three females at flowers of *Nemophila exilis* Eastwood.
- Halictus mellipes* Crawford. At *Cryptantha flaccida* (Douglas), female (W. P. Ckll.), and at *Ribes*.
- Halictus* (*Seladonia*) *tripartitus* Cockerell. At *Nemophila exilis*, three females. This is the *H. catalinensis* Ckll., as generally understood in California, but we follow Miss Sandhouse in considering this and *H. meliloti* Ckll., as forms of *H. tripartitus*. It may be possible to define two or three subspecies, on careful study of a sufficient amount of material.
- Halictus* n. sp. Timberlake MS. A species related to *H. bardus* Cresson, taken by Timberlake on San Jacinto Mtn. He also has one from the Yosemite, collected by D. W. Clancey. I took one female at flowers of *Ribes*.
- Agapostemon californicus vandykei* (Cockerell). Three females at *Nemophila maculata* Bentham. This beautiful insect, with brassy tints on the abdomen, is apparently to be separated as a race of the common green species of California.
- Andrena*\* sp. Male at *Salix*. Allied to *A. placida* and *A. medionitens*. Timberlake says that *A. medionitens* Ckll. occurs in this region in June.
- Andrena* sp. One at *Salix* (W. P. Ckll.). This is apparently identical with one from *Ribes*, which was seen by Viereck and labeled by him "near *excellens*."
- Andrena albihirta* (Ashmead). Two females at *Salix*, differing by the darker venation. A male from *Salix* should be this, but does not quite agree.
- Andrena auricoma* Smith. Not quite typical. At *Salix*, *Oenothera*, *Montia perfoliata* and *Cryptantha flaccida*.
- Andrena nigrocaerulea* Cockerell. One female at *Nemophila exilis*. Compared with the type it seems to be the same species, but there is some difference in the process of the labrum. A female from *Oenothera* has a more shining clypeus (approaching herein *A. epileuca* (Ckll.) but dullish abdomen.
- Andrena monogonoparia* Viereck, n. subsp. Timberlake MS. One female at *Arctostophylos patula* at Meyers Ranch. Timberlake got it in the San Bernardino and San Jacinto Mtns.

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\* The genus *Andrena* is represented in California by very many species, a large proportion of them still undescribed.

*Andrena* n. sp. Timberlake MS. Five females at *Ribes*. Timberlake also collected it at *Ribes*.

*Panurginus* sp. Two females at *Nemophila exilis*. Probably *P. atriceps* Cresson, but the male is needed.

*Nomada erythraea* Dalla Torre. At *Arctostaphylos patula* Greene.

*Nomada* sp. Female at *Arctostaphylos patula*. It runs in my key (Proc. Acad. Nat. Sci. Phila., 1903, p. 559) to California species to *N. tintinnabulum* Ckll., but it is 8 mm. long, and differs in many respects. It is probably new, and it is not in the collection at Riverside.

*Chelostomopsis rubifloris* (Cockerell). A common species; twelve females and fifteen males were taken. It visits *Cryptantha flaccida*

*Bombomelecta pacifica* Cresson. One at Myers Ranch, May 9 (W. P. Ckll.).

*Osmia lignaria* Say. Very many nesting in the ground along a path. Females at *Cercis* and *Nemophila exilis*; males at apple, *Ribes* and *Nemophila exilis*. This species was originally described as nesting in wood, as the name implies. The ground nesting habit is surprising, and raises again the question as to the possible distinctness of the western *O. propinqua* Cresson.

*Osmia faceta* Cresson. One male at *Nemophila exilis*. Tiemann gave me one he collected on *Azalea*.

*Osmia densa pogonigera* (Cockerell). At *Salix* (W. P. Ckll.), and at Myers Ranch at *Arctostaphylos patula*. We also took nine males which are presumed to belong here, at *Nemophila maculata* and *N. exilis*, at *Salix*, and one taken by Tiemann on *Azalea*.

*Osmia coloradensis* Cresson. One male at *Nemophila maculata*, May 11.

*Osmia californica* Cresson. Five males, at *Ribes*, *Arctostaphylos patula*, and *Nemophila*. This is *O. nassa* Ckll., which according to Miss Sandhouse is the true *O. californica*, that species having been misunderstood.

*Osmia atrocyanea* Cockerell. Male on yellow violet, and two at Myers Ranch, on *Arctostaphylos patula*.

*Osmia kincaidii* Cockerell. At *Nemophila exilis* (W. P. Ckll.) and at *Cryptantha flaccida*.

*Osmia pusilla* Cresson. One at *Nemophila exilis* (W. P. Ckll.).

*Osmia cyanella* Cockerell. One, May 10.

- Osmia wheeleri* Cockerell. At *Cercis* and *Nemophila exilis*. There has been much confusion as to the identity of *O. brevis* Cresson, and it may be that the species here recorded is the true *O. brevis*.
- Ceratina acantha submaritima* (Cockerell). Both sexes. It was found on *Cryptantha flaccida*, *Nemophila maculata*, *N. exilis* and *Oenothera*.
- Ceratina nanula rigdenae* Michener. One male at *Nemophila maculata*, May 11.
- Ceratina punctigena* Cockerell (or possibly *C. subpunctigena* Michener). One male at *Oenothera*, May 10 (W. P. Ckll.).
- Xylocopa orpifex* Smith. One male at *Nemophila patula* (W. P. Ckll.).
- Psithyrus crawfordi* Franklin. One, May 10.
- Bombus vosnesenskii* Radoszkowski. May 11. A variety with the light hair on head and thorax very pale.

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A NEW SPECIES OF TIPHIA FROM CALIFORNIA  
(Hymenoptera, Tiphidae)

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The following description of a new species of *Tiphia* is offered at this time so that a name will be available for some observations on the biology by Dr. E. G. Linsley and Dr. C. D. Michener. Dr. Linsley has been kind enough to permit the writer to place the type series in the collection of the United States National Museum except for a pair of paratypes which are to be deposited in the collection of the California Academy of Sciences.

*Tiphia shastensis* Krombein, new species

Female. 14.5 mm. long. Black; mandible in the middle castaneous; flagellum beneath and apex of pygidium ferruginous. Body inconspicuously clothed with grayish, suberect pilosity which is longer, more conspicuous, and tending toward yellowish at the apices and sides of the abdominal segments; hind tibial calcaria black; some of the tarsal spines fulvous. Wings brownish, somewhat infumated; stigma and basal veins dark brown, the apical veins lighter.

Head shining, moderately closely and coarsely punctured; mandible not denticulate along the superior or inferior margin; clypeus on basal half with several rows of subcontiguous punctures, apical half impunctate, apical margin broadly rounded;